

FIG. 1A

1/13^L

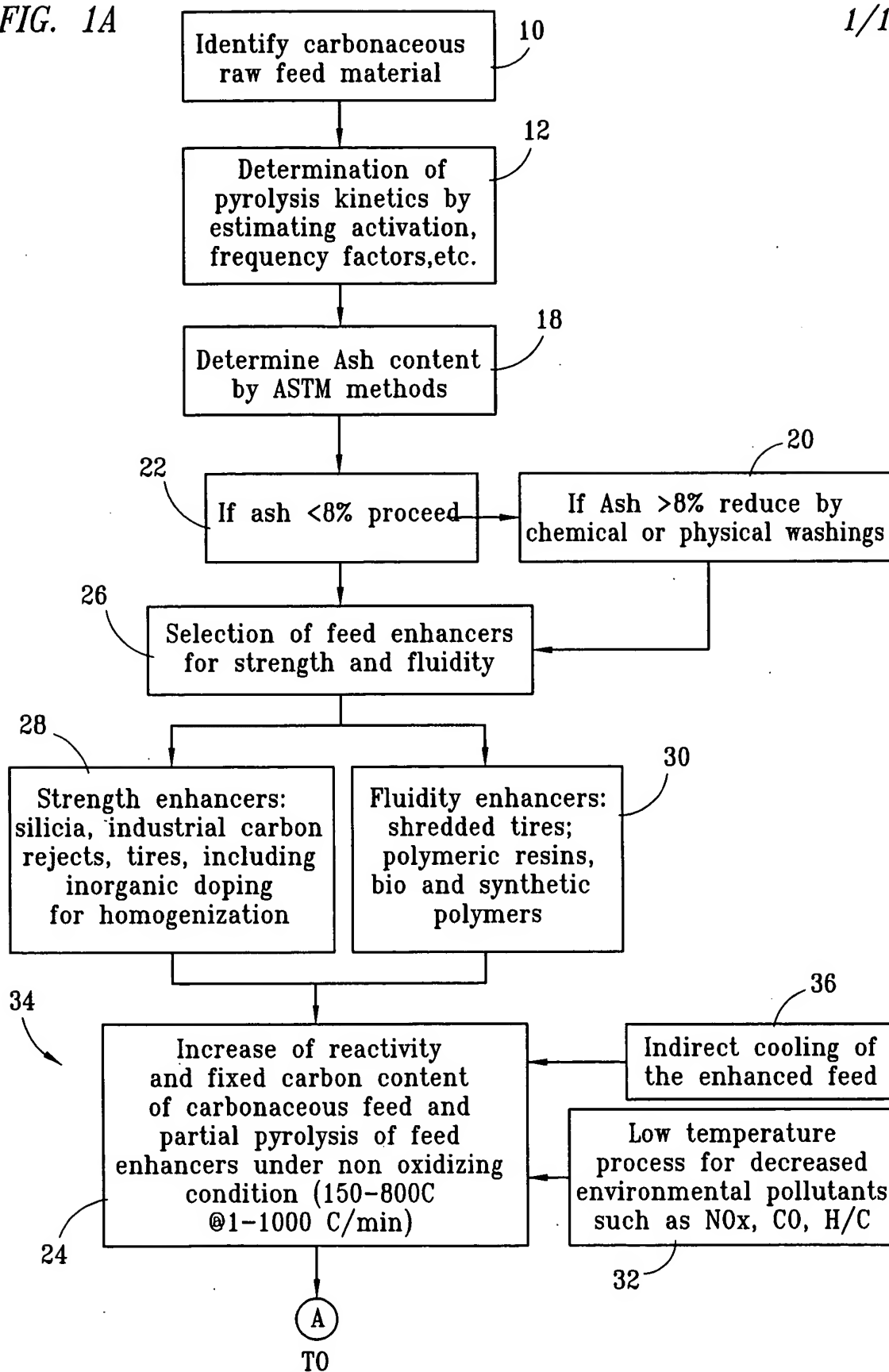


FIG. 1B

FIG. 1B

FROM
FIG. 1A

2/13^L

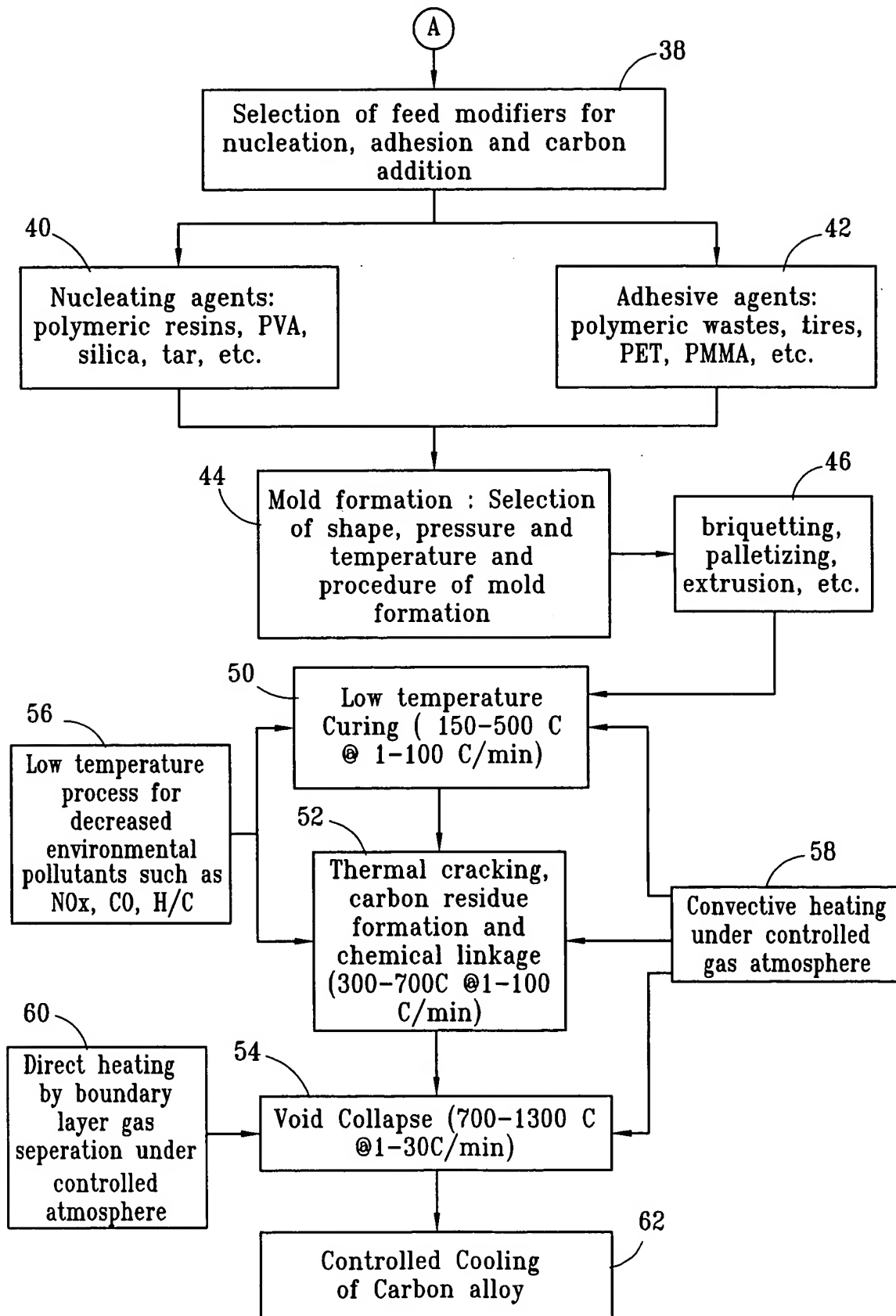
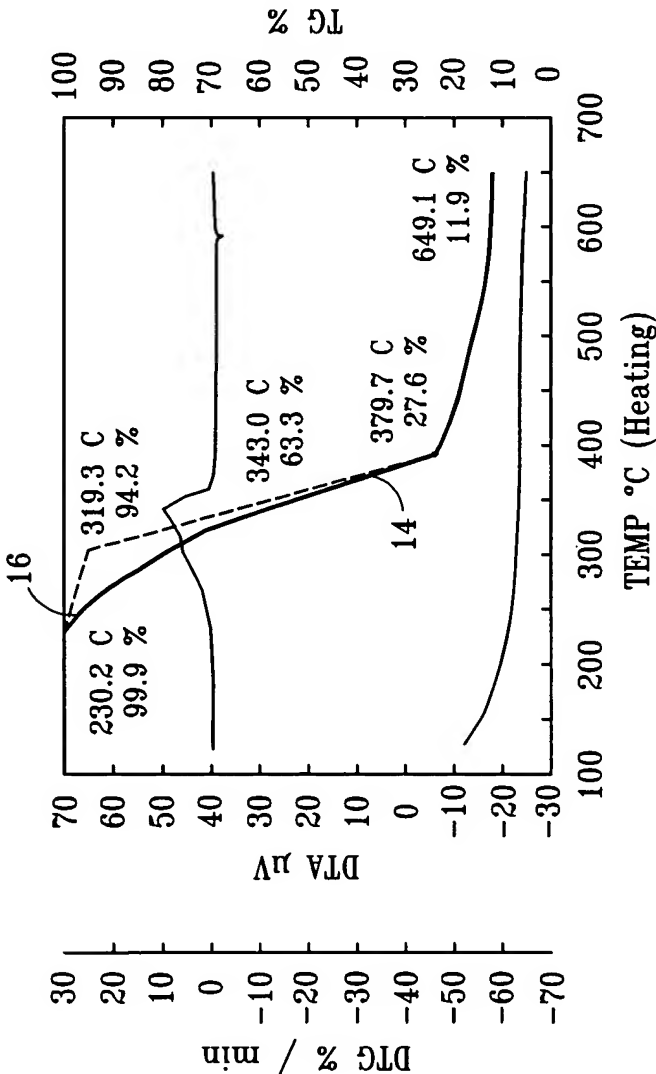


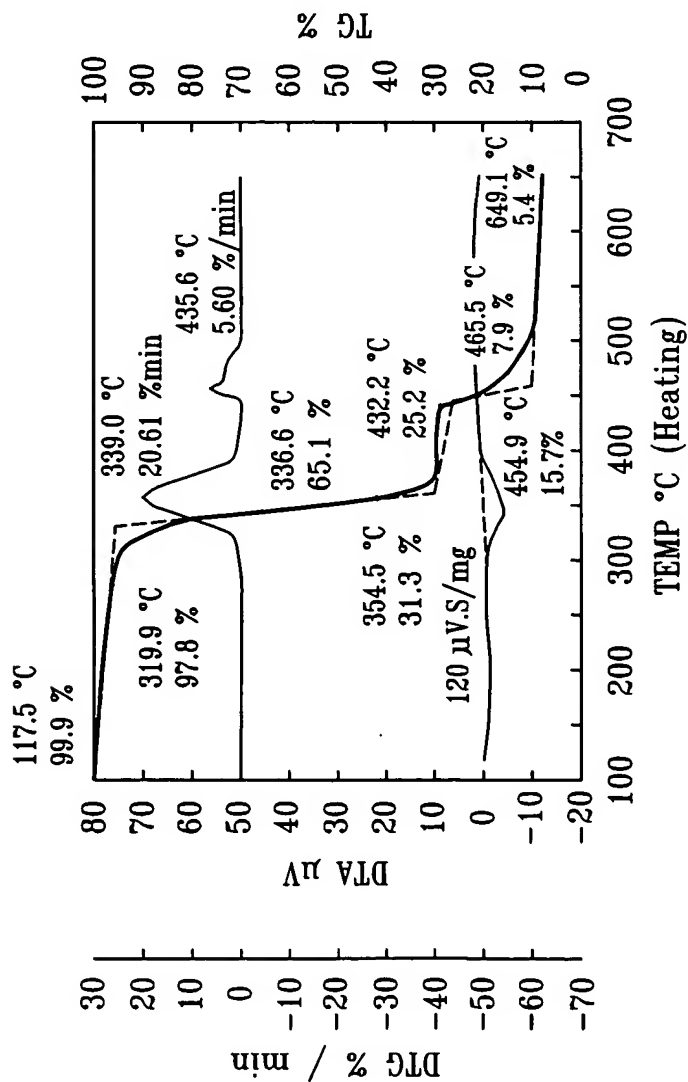
FIG. 2



Eastern red cedar
(*Juniperus Virginiana*)

Eastern red cedar (<i>Juniperus virginiana</i>)
Heating rate-°C/min: 10 Sample weight-mg: 11.09 T initial-°C: 230.2
Volatilization T start point-°C: 319.3 T mid point-°C: 343.0 T end point-°C: 379.7 T max-°C: 367.2 Rate max-mg/min: 11.45 Wt. 650 °C -: 11.9 Δ Hvol-μv.sec/mg: NS
Proximate analysis Volatiles Total -wt%: 93.5 Volatiles 650 °C -wt%: 88.1 Volatiles 650-950 °C -wt%: 5.4 Fixed carbon-wt%: 5.0 Ash-wt%: 1.5

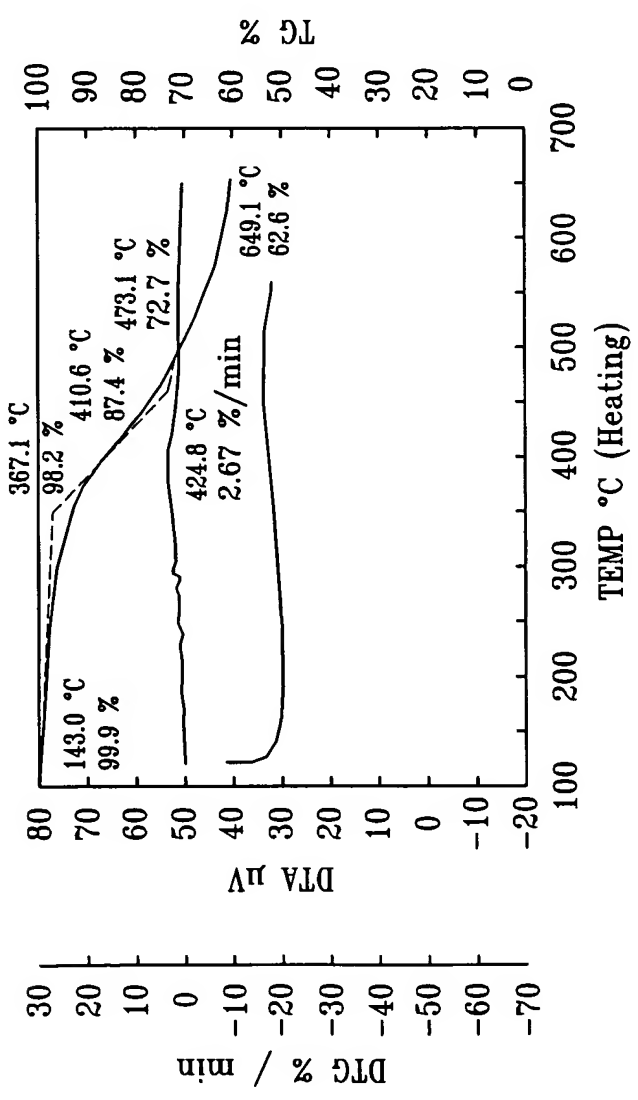
FIG. 3



Polyvinyl acetate

Polyvinyl acetate
Heating rate-°C/min: 10 Sample weight-mg: 2.121 T initial-°C: 117.5
Volatilization T start point-°C: 319.1 T mid point-°C: 336.6 T end point-°C: 354.5 T max-°C: 339.0 Rate max-mg/min: 20.61 Wt. 650 °C -: 5.4 Δ Hvol-uv.sec/mg: 120
Proximate analysis Volatiles Total -wt%: 94.6 Volatiles 650 °C -wt%: 94.6 Volatiles 650-950 °C -wt%: 0.0 Fixed carbon-wt%: 5.4 Ash-wt%: 0.0

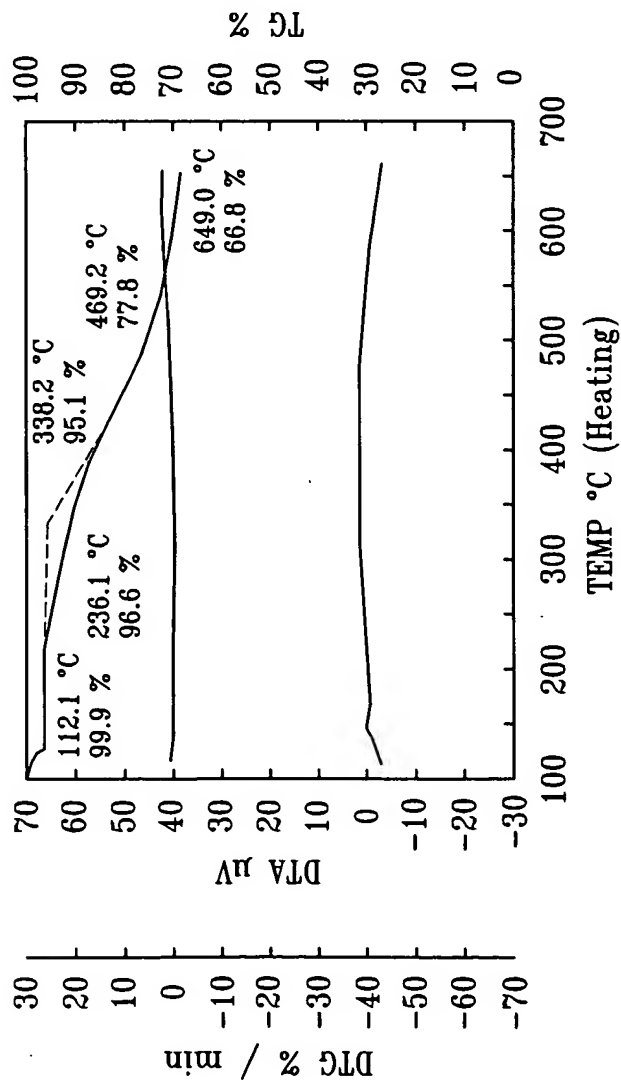
FIG. 4



Coal, Wyodak bituminous
(Subbituminous, Wyoming)

Coal, Wyodak bituminous (Subbituminous, Wyoming)
Heating rate-°C/min: 10 Sample weight-mg: 7.060 T initial-°C: 143.0
Volatilization T start point-°C: 367.1 T mid point-°C: 410.6 T end point-°C: 473.1 T max-°C: 424.8 Rate max-mg/min: 2.67 Wt. 650 °C -: 62.6 Δ Hvol-uv.sec/mg: NS
Proximate analysis Volatiles Total -wt%: 55.1 Volatiles 650 °C -wt%: 37.4 Volatiles 650-950 °C -wt%: 17.7 Fixed carbon-wt%: 37.9 Ash-wt%: 7.0

FIG. 5

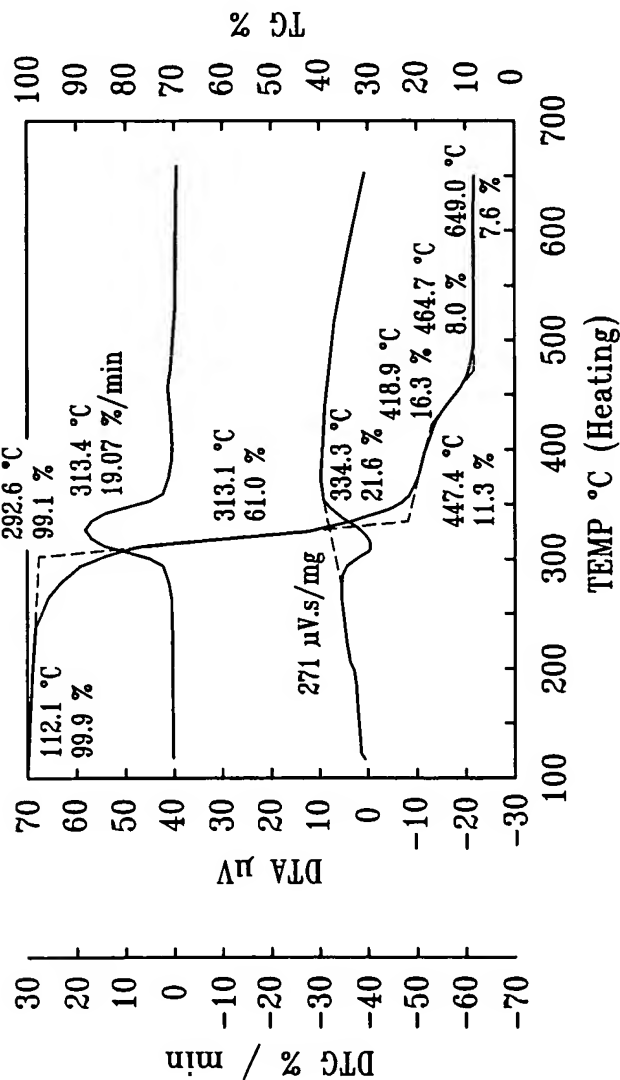


Coal, Buelah zap lignite
(North Dakota)

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Coal, Buelah zap lignite (North Dakota)
Heating rate-°C/min: 10 Sample weight-mg: 6.297 T initial-°C: 112.1
Volatilization T start point-°C: 236.1 T mid point-°C: 338.2 T end point-°C: 469.2 T max-°C: NA Rate max-mg/min: NS Wt. 650 °C -: 66.8 Δ Hvol-μv.sec/mg: NS
Proximate analysis Volatiles Total -wt%: 39.7 Volatiles 650 °C -wt%: 33.2 Volatiles 650-950 °C -wt%: 6.5 Fixed carbon-wt%: 52.1 Ash-wt%: 8.2

FIG. 6



Paraffin
Heating rate-°C/min: 10 Sample weight-mg: 4.751 T initial-°C: 112.1
Volatilization T start point-°C: 292.6, 418.9 T mid point-°C: 313.1, 447.4 T end point-°C: 334.3, 464.7 T max-°C: 313.4 Rate max -mg/min: 19.07 Wt. 650 °C -: 7.6 Δ Hvol- μ v.sec/mg: 271
Proximate analysis Volatiles Total -wt%: 93.0 Volatiles 650 °C -wt%: 92.4 Volatiles 650-950 °C -wt%: 0.6 Fixed carbon-wt%: 5.9 Ash-wt%: 1.1

Refuse-derived fuel (Teledyne)
Heating rate-°C/min: 10 Sample weight-mg: 5.245 T initial-°C: 116.1
Volatilization T start point-°C: 294.4 T mid point-°C: 321.6 T end point-°C: 354.9 T max-°C: 339.0 Rate max-mg/min: 8.58 Wt. 650 °C -: 30.0 Δ Hvol-μV.sec/mg: 44
Proximate analysis Volatiles Total -wt%: 76.8 Volatiles 650 °C -wt%: 70.0 Volatiles 650-950 °C -wt%: 6.8 Fixed carbon-wt%: 16.4 Ash-wt%: 6.8

FIG. 7

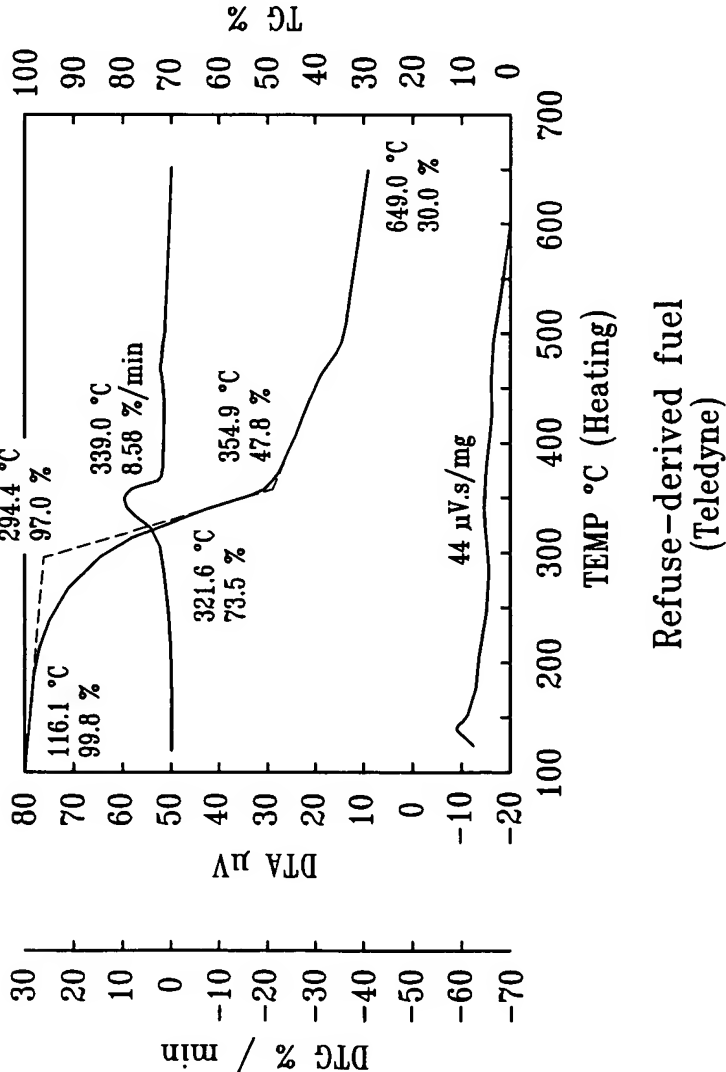
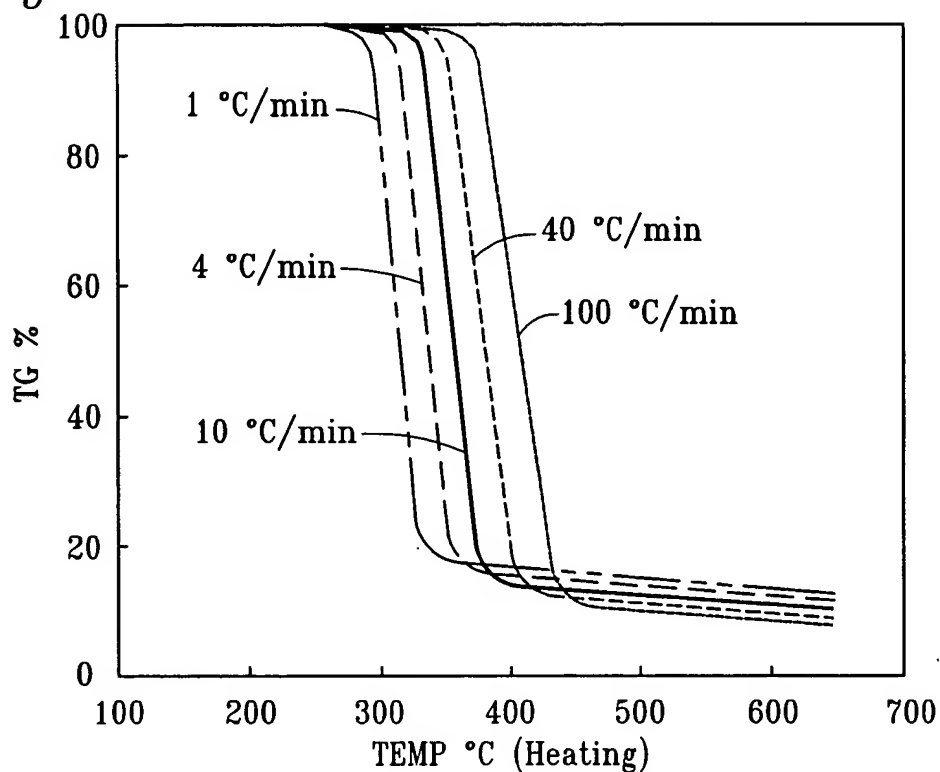


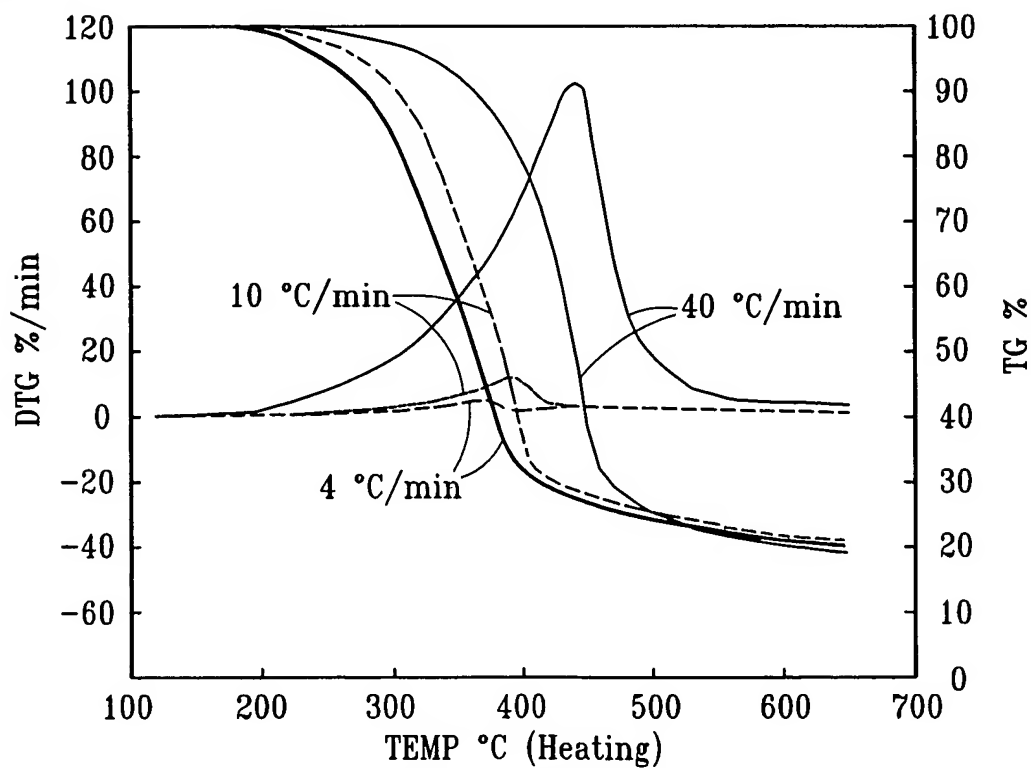
FIG. 8

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Effect of Heating Rate
(Heated at 1, 4, 10, 40 and 100 °C/min)

FIG. 9



Effect of Heating Rate

FIG. 10

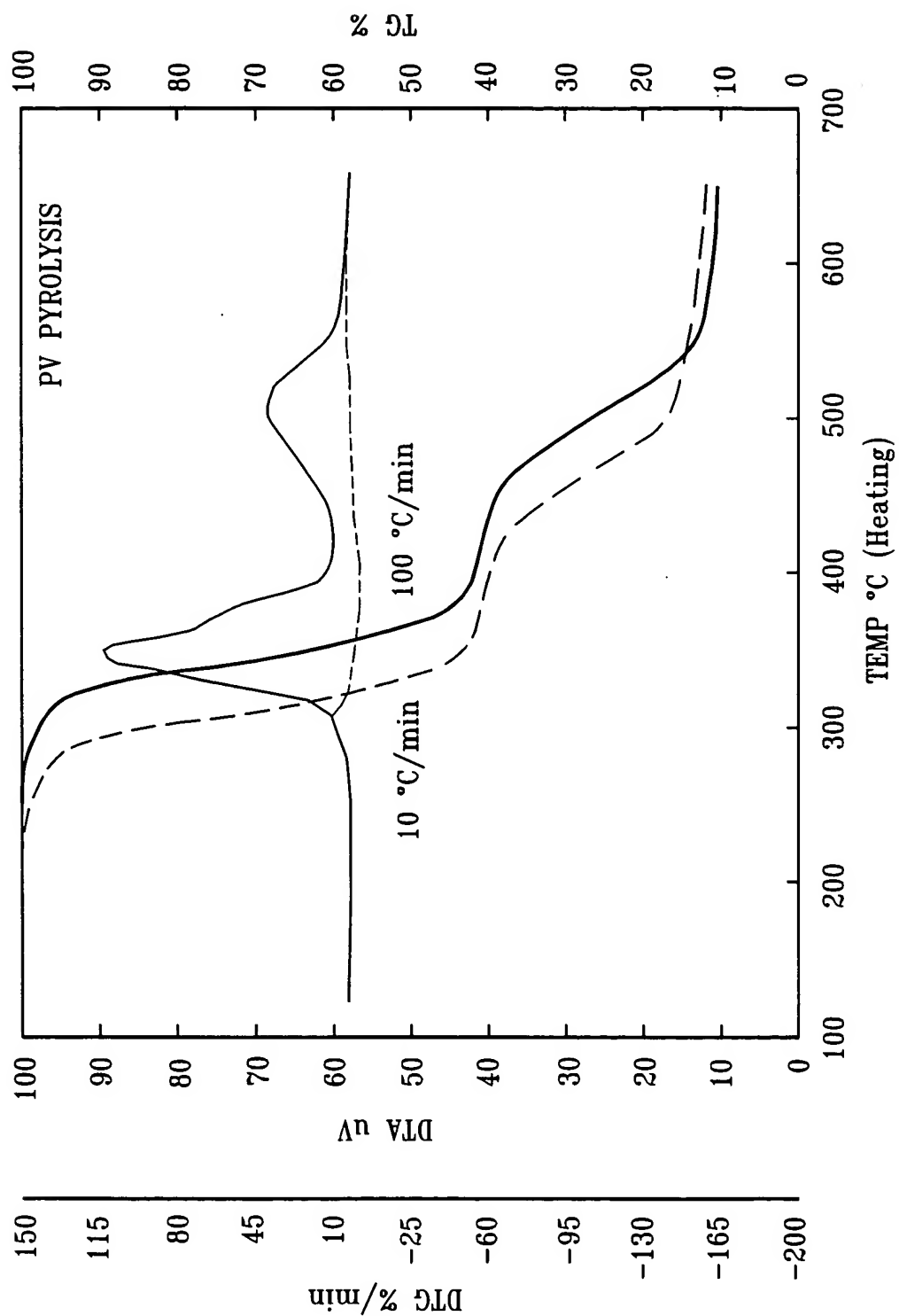


FIG. 11

PVA (16.8), Polyethylene (11.2%), PTFE (19.9%), PVC (32.4%) & PMMA (19.7%)

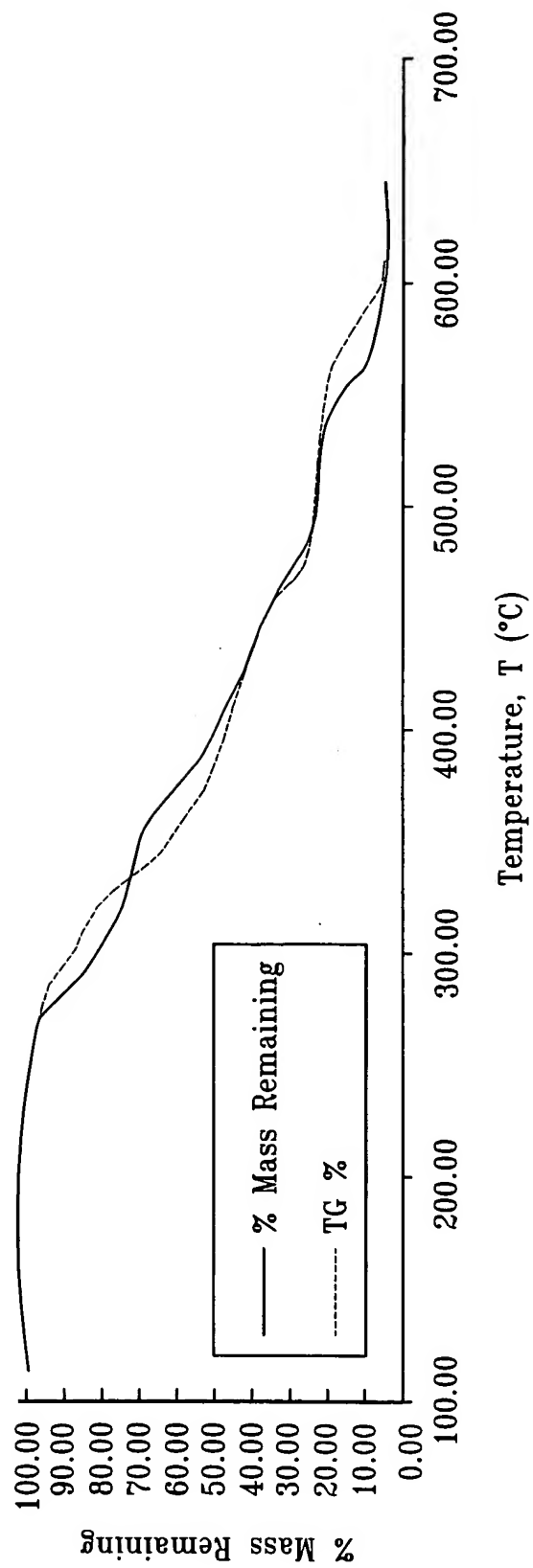


FIG. 12

Polyethylene (35.4%), Polyvinylacetate (27.8%), PVC (36.8%)

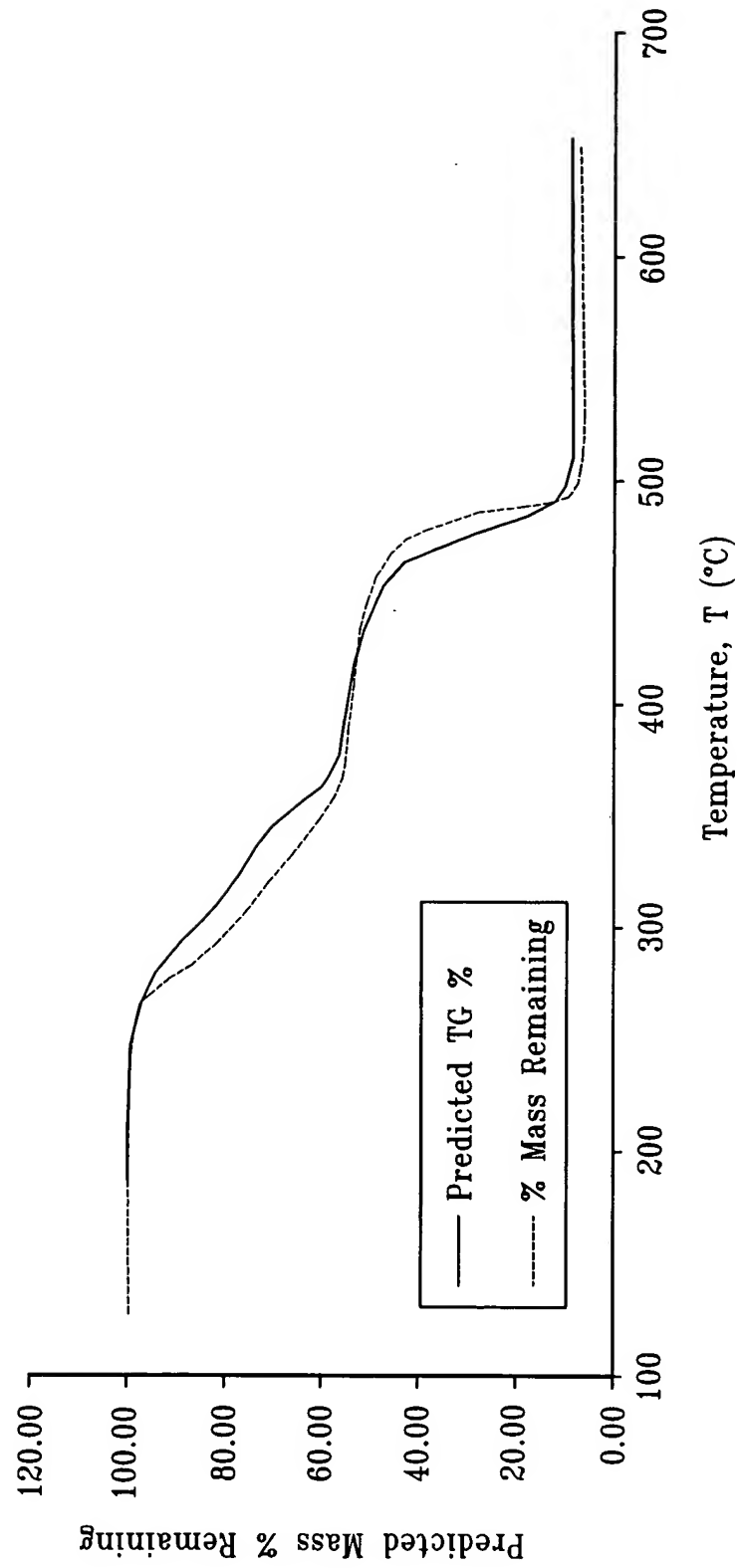


FIG. 13

